

A B S T R A C T

CATALYST AND ITS USE IN DESULPHURISATION

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A catalyst is provided comprising nickel in a reduced valence state on a carrier comprising zinc oxide and alumina, wherein the Zn:Ni atomic ratio is at least 12, and the catalyst particles are prepared by:

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- mixing zinc oxide in the form of a powder and alumina or an alumina precursor in the form of a powder;

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- peptising the powder mixture and forming an extrudable dough by adding acid and water to the powder mixture in such amounts that the dough contains 0.8-1.2 moles acid equivalents per kg powder;

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- extruding the extrudable dough to form extrudates;

- drying and calcining the extrudates;

- impregnating the extrudates with an aqueous solution of a nickel compound;

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- drying, calcining and reducing the impregnated extrudates.

Further provided is a process for desulphurisation of a hydrocarbonaceous feedstock using such catalyst.